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# Surface Mine Countermeasure Unmanned Undersea Vehicle (SMCM UUV) Acquisition Plan

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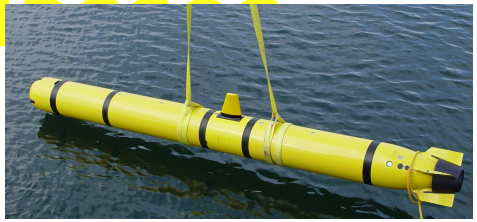
# Four Vehicle Classes



| Class | Displace-ment (lbs) | Endurance High hotel Load (hours) | Endurance Low hotel load (hours) | Payload (ft^3) |
|---|---|---|---|---|
| Man Portable 3”-9” dia. | <100 | <10 | 10-20 | <0.25 |
| LWV ~12.75” dia. | ~500 | 10-20 | 20-40 | 1-3 |
| HWV ~21” dia. | <3000 | 20-50 | 40-80 | 4-6 |
| Large >36” dia. | ~20,000 | 100-300 | >>400 | 15-30 + external stores |

| Seapower Pillar | Priority | Sub Pillar Capability | Man Portable | LWV | HWV | Large |
|---|---|---|---|---|---|---|
| FORCEnet | 1 | Intelligence, Surveillance, Reconnaissance | Special Purpose | Harbor | Tactical | Persistent |
| | 4 | Oceanography | | Special Purpose | Littoral Access | Long Range |
| | 5 | Communication / Navigation Network Nodes | VSW / SOF | Mobile CN3 | | |
| | 2 | Mine Countermeasures | VSW / SW SCM / RI Neutralizers | OPAREA Clearance | Clandestine Recon. | |
| Sea Shield | 3 | Anti-Submarine Warfare | | | | Hold-at-Risk |
| | 6 | Inspection / ID | HLD/ATFP | | | |
| Sea Base | 7 | Payload Delivery | | | | SOF, ASW, MCM, TCS** |
| | 8 | Information Operations | | Network Attack | Submarine Decoy | |
| Sea Strike | 9 | Time Critical Strike | | | | |

# Surface MCM UUV Acquisition

## Spiral 1: Dual Frequency Synthetic Aperture Sonar (SAS)

- Requirements based on ONR 12.75” UUV dual frequency synthetic aperture sonar technology development with input from Requirements Working Group
  - HF provides high resolution images at longer range
  - LF penetrates bottom for detection of buried mines
- Procures 3 systems of 2 UUVs and support equipment
  - Host platform will be MCM class ships and Crafts of Opportunity
  - Supported as User Operational Evaluation Systems (UOES) until FY11
- Option for 6 additional systems for PMS EOD
- Plan to issue the RFP Nov 2005

# Surface MCM UUV Acquisition

## Spiral 2: Buried Mine Detection Capability

- Requirements based on ONR/NRL Low Frequency Broadband (LFBB) technology development with input from Requirements Working Group
  - Provides long range mine detection
  - Low frequency band provides deeper ground penetration to detect buried mines than other ONR SAS sensors
- Procures systems of 2 UUVs and support equipment
- Host platform will be LCS class ships, other crafts of opportunity, and pierside
- Current plan is to issue the RFP Nov 2007
  - Program will be initiated with other sensor technology with future LFBB implementation if not supported by

# Surface MCM UUV Acquisition Schedule